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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,484	10/31/2003	Sun-Ho Kang	051583-0289	3154

27433 7590 11/28/2006

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CHICAGO, IL 60610-4764

EXAMINER
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CANTELMO, GREGG

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/699,484

**Applicant(s)**

KANG ET AL.

**Examiner**

Gregg Cantelmo

**Art Unit**

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                                  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

## **DETAILED ACTION**

### ***Response to Amendment***

1. In response to the amendment received September 11, 2006:
  - a. The drawing objections have been withdrawn in light of the replacement drawings and applicant's remarks;
  - b. The previous objections and rejections have been withdrawn in light of the amendment and applicant's remarks;
  - c. The double patenting rejection has been overcome in light of the terminal disclaimer.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not reasonably teach of compositions wherein X is any other element aside from F. Thus the claims directed to X being S, Cl or I do not appear to have proper antecedent basis in the specification and further lack enablement as described below.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 8-20 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for X being F, does not reasonably provide

Art Unit: 1745

enablement for X being any other element. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The entire disclosure is specifically devoted to the use of fluorine as the X element and there is no reasonable disclosure as to the use of the other elements in the claimed genus or of the amount of these other species relative to the claimed composition. Furthermore considering that the genus is not limited within a single family in the periodic table there would be a reasonable expectation that the amounts of X for sulfur would not be the same as that of fluorine. Applicant is advised to amend the claim to limit X to fluorine since this is the only reasonably disclosed species for the composition.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase defining M' and X as written appears to define M' and X as being all of these elements present in the composition whereas it appears that the specification defines M' and to a significantly lesser extent X as being particular genus claims.

Applicant is advised to replace the parentheticals of claims 1-20 to appropriate Markush language to overcome this 112 rejection. For example the M' group should be rewritten to be wherein M' is at least one element selected from the group consisting of Mg, Zn, Al, Ga, B, Zr and Ti).

Art Unit: 1745

As well the solutes identified in claims 11, 12, 13 are also indefinite since it is unclear as to what combinations are required and once more appears to use improper Markush language.

Furthermore the group of claim 18 employs improper Markush language and is required that the term "and" be inserted between the last two elements of the genus.

***Allowable Subject Matter***

5. Claims 1-20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

6. The following is an examiner's statement of reasons for allowance: none of the prior art of record appear to teach, suggest or render obvious the composition of claims 1-20 wherein the composition positively requires the presence of each of Li, Ni, Mn, Co, M' as defined as the described general Markush group, O and F as the exemplary element for X.

It should be readily apparent that the previous claims were significantly broader and did not require the presence of each element in the original claim. Applicant has amended the claim to require the presence of each element in the composition of claims 1-20.

JP 2000-243394 discloses a lithium composition which includes Li, Ni, Mn, Co, Al and B (M'), O and F (paragraph [0061]) but the amounts present for at least some of these constituents are significantly different from that of the claimed invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

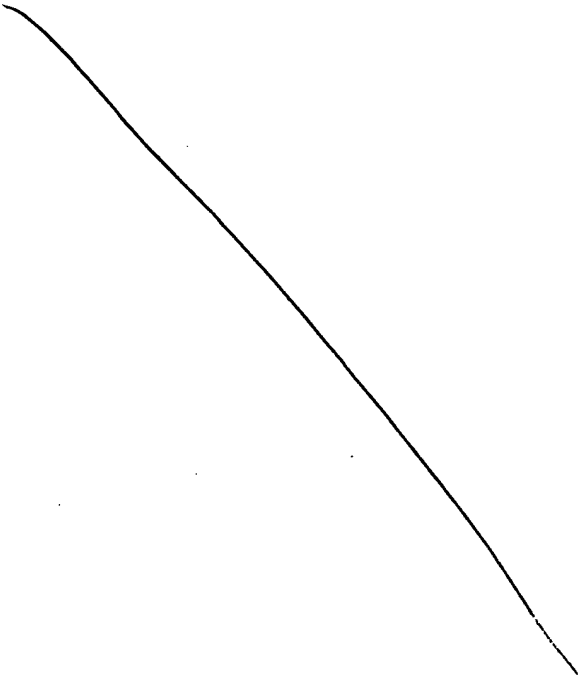
accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

7. The Examiner appreciated Mr. Matthew E. Martin's assistance in attempting to address some of the issues above by an Examiner's Amendment however upon further consideration and in light of the additional 112 1<sup>st</sup> and 2<sup>nd</sup> rejections of the claims it became apparent to the Examiner it would clarify prosecution by presenting a new grounds of rejection on the record.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is 571-272-1283. The examiner can normally be reached on Monday to Thursday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



gc

November 21, 2006

Gregg Cantelmo  
Primary Examiner  
Art Unit 1745